

IVANOVA, A. A.

Preparation of drying oil from cottonseed oil. A. A. Ivanova. *J. Applied Chem. (U. S. S. R.)* 11, 1971 (1968).  
Cottonseed oil oxidized by air at 120° in the presence of Pb and Cu oxides and pyralisite yielded oil with the acetyl no. 85. The oxidized oil dehydrated at 275-30° in the presence of  $Al_2O_3$  and Zn gave a product of acetyl no. 11. This product was a very satisfactory drying oil. A. A. Podgorny

21

**Semidrying oils in the manufacture of drying and non-drying lacquers.** A. A. Ivanova. *Trudy Inst. Lkhov i Krasok* 2, 236-51 (1939).—Thirty % corn oil, 30% rape-seed oil, 10% mustard-seed oil or 20% cottonseed oil can be combined with linseed oil to give mixes. of about the same drying speeds as those of natural drying oils; the hardness, elasticity, water resistance and heat stability of the films are satisfactory. Drying oils prepd. from polymerized oil mixes dry more slowly than the unpolymerized oils, while a drying oil composed of a mixt. of oils which were individually polymerized dries still more slowly. The heat resistance is higher with the unpolymerized drying oils, and the polymerized oils are more water-stable and coagulate more rapidly. A great variety of expts. is described.

A. A. Bochtlingk

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

Semidrying oils in the manufacture of all paints. A. A. Ivanova. *Trudy Inst. Khim. i Krasok* 2, 211-8 (1930).  
The drying of natural drying oil after addition, of some semidrying oil plus 1% oil drer in soln. in white spirit proceeds normally if the original drying oil has normal drying properties. In the mixing of drying oils the drying of the original drying oil must be tested first and the dry residue of the oil drer must also be dried. The liquid oil drer must be taken with semidrying oils on the basis of the solid residue. The quality of films prepd. in the cold is slightly inferior to those prepared by cooking.  
A. A. Bochtinsk.

**A. A. Bechtling**

### ABR-514 METALLURGICAL LITERATURE CLASSIFICATION

Drying oils from tall oil. A. A. Ivanova. *Russk. khim. Obit. Leningradsk. Prom.* 1939, No. 3, 18-20.  
Tall oil of sapot no. 158, I no. 145 I, acid value 158.3, unsaponifiable matter 7.4%, resin acids 51.5%, and fat acids 41.1% was esterified with glycerol in 2 ways: (I) 180 g. oil, 20 g. glycerol at 250° for 3 hrs. gave an acid value of 9.1; (II) 160 g. oil, 40 glycerol at 250° for 3 hrs. gave an acid value of 6.8. I and II (50%) were used with 10% white spirits and 10% diol No. 64. They dried only after 72 hrs. Tall oil (70 g., glycerol 11 g. and 10 g. of resin were heated at 250° for 3 hrs. Acid value of the product was 16. The product (47.2 g.) was made up with white spirit (42 g.) and 10 g. of diol No. 64 and gave completely dry films in 24 hrs. The films were removed and aged 72 hrs. The results of these and of a no. of other expts. led to 2 methods of prepn. of a drying tall oil: (a) 88% tall oil, 28% rosin, 14% glycerol with a subsequent neutralization of the free acids with 1% CaO and 0.4% litharge; (b) 80% tall oil, 14% glycerol with a subsequent oxidation at 150° in the presence of a diol as a catalyst. Both (a) and (b) gave satisfactory films whether they are pigmented or not. D. Achony

ASME 34 A METALLURGICAL LITERATURE CLASSIFICATION

Production of drying oil from cottonseed oil under plant conditions. A. A. Ivanova. *Brail Obmen Laboratorii*. not from 1939, No 5, 207. Oxidation of cottonseed oil followed by dehydration gives a dark colored, film-producing oil. Lab-prepd. pigmented oil dried in 24 hrs. while the factory product dried in 24-35 hrs. The film softens at 30-38°C. David Aclony

ASB 5.4 METALLURGICAL LITERATURE CLASSIFICATION

[illegible]

Dehydration of castor oil. A. A. Ivanova, D. N. Bogdanovskii and M. G. Hmanu. *Byull. Odesk. Univ. Khim. Nauk*, 1939, No. 8, 18-19; cf. C. A. 34, 6467. —Dehydration of castor oil at 20-30° catalyzed by arsenite, boron or "gumbrin" is sufficiently rapid but gives unsatisfactory products owing to hydrolysis to di- and monoglycerides. Good results were obtained when 0.25-0.50%  $H_2SO_4$  was used as a catalyst. Light-colored oils with acid nos. below 15 were obtained. Continuous dehydration over clay catalyst failed, but succeeded with  $H_2SO_4$  and lowered acetyl nos. from 140 to 250. D. A.

26

CA

Drying oil from sunflower-seed oil. A. A. Ivanov, *Hyd. Osmen Opyt. Tekhnicheskoy Prom.* 1939, No. 10, 17-18. For the production of drying oils sunflower-seed oil having the following constn. was used: acid value 3.27, sapon. value 192.35 and I no. 127.1. Sunflower-seed oil (1000 kg.) was oxidized at 140-50° in the presence of 5 kg. pyrolusite and 5 kg. of litharge placed in a net. Oxidation was stopped after the viscosity reached 0.5' in N. 1. I. K. pipet. Then the oil was bleached by blowing air through it at 90° for 17-22 hrs. This increased the viscosity to 8.8'. When the reaction was over the catalyst weighed 7.5 kg. The oxidized oil had an acid value of 14.0, sapon. value 178.9, I value 85 and hydroxyl 1.86%. The oxidized oil was heated with 30 kg. of Zn sheet for 23 hrs. at 275°. Viscosity increased to 15.5. Zinc sheet weighed 20 kg. after the dehydration was over. The dehydrated oil had an acid value of 20.75, sapon. value of 168.4, I no. 80.45 and hydroxyl 0.57%. The dehydrated oil (1000 kg.) was mixed with 1035 kg. kerosene and 102 kg. of drier No. 630. This varnish dried at 20° in 6 hrs. Paints made with sunflower-seed drying oil dry somewhat slower than those made with linseed oil; they are also somewhat less water-resistant. David Aclony

ASTM 514 METALLURGICAL LITERATURE CLASSIFICATION



26

Emulsion paints. A. A. Ivanova. Byull. Dnoven  
 (Byt. Lakokrastokhod Prom. 1930, No 11-12, 234. Lead  
 salts of unsatd. acids were best emulsifying agents. Emul-  
 sified paints proved to be as good as solvent paints. Ex-  
 posure to atm. for 11 months gave pos. results. D. A.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

Dehydration of castor oil. A. A. Ivanova, D. N. Bogoslovskii and M. Roman. *Russk. Khim. Otkryt. Leksikograf. Prom.* 1940, No. 4, 9-10; cf. C. A. 34, 8241P. —Castor oil was dehydrated by use of  $H_2SO_4$  org. sulfo acids and clays activated by boiling with 5-10%  $H_2SO_4$ . Activated clays without a further thermal treatment yield poorly drying oils even though the Ac no. of the products was low. With 1% of 1 R1 sp. gr.  $H_2SO_4$ , a hydration was complete in 1.5 hrs. at 210-220°; a rather dark but rapidly drying oil is obtained which gives a water-resistant hard film. If 0.5%  $H_2SO_4$  is used the oil should be dehydrated at 250-300° and 0.25% of  $H_2SO_4$  requires a temp. of 270-3°. At the conditions described, after foaming ceases the Ac no. of the oil is 20-30 and the viscosity is half that of the initial oil, but the films from this oil are poorer than those from linseed oil or castor oil dehydrated with Pb, Mn or Zn catalyst. If the oil is further polymerized at 280° to a viscosity of 2-3, the painting properties are considerably enhanced. Zinc white ground with such an oil showed no thickening. Org. sulfo acids yielded products analogous to those obtained with  $H_2SO_4$ .  
David Aelony

Continuous dehydration of castor oil. A. A. Ivanova  
and M. G. Buman. *Byull. Obmena Opyt. Lakhshtatshchik  
Prom.* 1940, No. 5, 10-21; cf. C. A. 35, 16174. —Continu-  
ous dehydration of castor oil with lead ricinoleate as a  
catalyst at 275° yielded a product which when made into  
paints gave films equal to those made from the batch-  
method-dehydrated castor oil in general painting proper-  
ties, in drying, elasticity and water resistance and superior  
to it in hardness. David Aclony

ASD-3LA METALLURGICAL LITERATURE CLASSIFICATION

26

CR

Processes and Properties Index

Two types of emulsion paints. A. A. Ivanova and R. Shifchevskaya. *Bull. Obmena Opyt. Tekhnol. 1940, No. 6, 16-18; cf. C. A. 35, 637.*—The growth of emulsion paints on the market in recent years stimulated the authors to make a study of the oil-in-water and the water-in-oil types of paint emulsions. The water-in-oil type is preferred because the films possess a greater hardness, also the oil-in-water emulsions (prepd. with sodium soaps) revert in time to the water-in-oil type. Two % Mg soap is recommended for the water-in-oil type. Oil economy in emulsions of this type is 20%. Emulsion paints compared favorably with the ordinary oil paints. David Aclony

ASB-550 METALLURGICAL LITERATURE CLASSIFICATION

| 1ST AND 2ND COLUMNS   |  |  |  |  |  |  |  |  |  | PROCESSING AND PROPERTY INDEX                       |  |  |  |  |  |  |  |  |  | 3RD AND 4TH COLUMNS                                 |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| BC  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
| <p>Preparation of drying oils from tall oil. A. A. IVANOVA (Prom. Org. Chim. 1940, 7, 41-42).<br/>           Drying oils are obtained by esterification of a mixture of tall oil 50, castor oil 30, and glycerol 14%, or of an 8-6: 1-4 tall oil-glycerol mixture, followed by oxidation at 150° in presence of oxides of metals as catalysts. Addition of dehydrated castor oil renders the films more elastic.<br/>           R. T.</p> |  |  |  |  |  |  |  |  |  | B-2-7   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
| 458.554 METALLURGICAL LITERATURE CLASSIFICATION   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
| FROM STUDYING   |  |  |  |  |  |  |  |  |  | RESEARCH MAP ONLY ONE                               |  |  |  |  |  |  |  |  |  | CLASSIFICATION                                      |  |  |  |  |  |  |  |  |  |
| SOURCES   |  |  |  |  |  |  |  |  |  | 1ST AND 2ND COLUMNS                                 |  |  |  |  |  |  |  |  |  | 3RD AND 4TH COLUMNS                                 |  |  |  |  |  |  |  |  |  |
| A B C D E F G H I J K L M N O P Q R S T U V W X Y Z   |  |  |  |  |  |  |  |  |  | A B C D E F G H I J K L M N O P Q R S T U V W X Y Z |  |  |  |  |  |  |  |  |  | A B C D E F G H I J K L M N O P Q R S T U V W X Y Z |  |  |  |  |  |  |  |  |  |

[illegible]

*B-2-7*

Oil paints in emulsion of two types. A. A. Ivanova and  
M. M. Scherecherstaja (Prom. Dy. Khim., 1940, 7, 118--  
490).—Oil paints mixed with H<sub>2</sub>O-in-oil emulsions are more  
economical and give harder coatings than do those of the oil-  
in-H<sub>2</sub>O type.

R. T.

Investigation of the behavior of cod and dolphin fats as oil paints. A. A. Ivanova and K. I. Shaposhnikova. *Изв. Вузов. Химия* (Technical Paper) 1940, No. 10, 19-21. The authors investigated paint formulations in which the fatty oils of codfish and dolphin were used alone and in mixtures with drying oils. Use of castor oil base gives fairly satisfactory finishes. Dolphin oil gives generally better films. Iron base pigments are destructive to the film with these components, both in drying time and in water resistance. Zinc white pigment in these compounds gives satisfactory paint finishes. 50% linseed oil, 25% castor oil, 25% codfish or dolphin fat; iron base and other pigments in these formulations show poorer water stability than the Zn-pigmented formulations.

G. M. Kozlovskii



26

THE USE OF CODFISH AND DOLPHIN OILS FOR OIL PAINTS. A. A. Ivanova and K. F. Shaposhnikova. *J. Chem. Ind. (U.S.S.R.)* 18, No. 8, 2786 (1941); *Chem. Zentr.* 1942, I, 206; cf. C. A. 35, 6131<sup>9</sup>. Mixts. of 25% cod oil and 75% natural varnish give films satisfactory as to drying, resistance to H<sub>2</sub>O and hardness. With dolphin oil, the films are less hard. H. M. Lokyster

ASAC-55A METALLURGICAL LITERATURE CLASSIFICATION

| SECTION | SUBSECTION | CLASSIFICATION | REMARKS |
|---------|------------|----------------|---------|
| 1       | 1          | 1              |         |
| 2       | 2          | 2              |         |
| 3       | 3          | 3              |         |
| 4       | 4          | 4              |         |
| 5       | 5          | 5              |         |
| 6       | 6          | 6              |         |
| 7       | 7          | 7              |         |
| 8       | 8          | 8              |         |
| 9       | 9          | 9              |         |
| 10      | 10         | 10             |         |
| 11      | 11         | 11             |         |
| 12      | 12         | 12             |         |
| 13      | 13         | 13             |         |
| 14      | 14         | 14             |         |
| 15      | 15         | 15             |         |
| 16      | 16         | 16             |         |
| 17      | 17         | 17             |         |
| 18      | 18         | 18             |         |
| 19      | 19         | 19             |         |
| 20      | 20         | 20             |         |
| 21      | 21         | 21             |         |
| 22      | 22         | 22             |         |
| 23      | 23         | 23             |         |
| 24      | 24         | 24             |         |
| 25      | 25         | 25             |         |
| 26      | 26         | 26             |         |
| 27      | 27         | 27             |         |
| 28      | 28         | 28             |         |
| 29      | 29         | 29             |         |
| 30      | 30         | 30             |         |
| 31      | 31         | 31             |         |
| 32      | 32         | 32             |         |
| 33      | 33         | 33             |         |
| 34      | 34         | 34             |         |
| 35      | 35         | 35             |         |
| 36      | 36         | 36             |         |
| 37      | 37         | 37             |         |
| 38      | 38         | 38             |         |
| 39      | 39         | 39             |         |
| 40      | 40         | 40             |         |
| 41      | 41         | 41             |         |
| 42      | 42         | 42             |         |
| 43      | 43         | 43             |         |
| 44      | 44         | 44             |         |
| 45      | 45         | 45             |         |
| 46      | 46         | 46             |         |
| 47      | 47         | 47             |         |
| 48      | 48         | 48             |         |
| 49      | 49         | 49             |         |
| 50      | 50         | 50             |         |
| 51      | 51         | 51             |         |
| 52      | 52         | 52             |         |
| 53      | 53         | 53             |         |
| 54      | 54         | 54             |         |
| 55      | 55         | 55             |         |
| 56      | 56         | 56             |         |
| 57      | 57         | 57             |         |
| 58      | 58         | 58             |         |
| 59      | 59         | 59             |         |
| 60      | 60         | 60             |         |
| 61      | 61         | 61             |         |
| 62      | 62         | 62             |         |
| 63      | 63         | 63             |         |
| 64      | 64         | 64             |         |
| 65      | 65         | 65             |         |
| 66      | 66         | 66             |         |
| 67      | 67         | 67             |         |
| 68      | 68         | 68             |         |
| 69      | 69         | 69             |         |
| 70      | 70         | 70             |         |
| 71      | 71         | 71             |         |
| 72      | 72         | 72             |         |
| 73      | 73         | 73             |         |
| 74      | 74         | 74             |         |
| 75      | 75         | 75             |         |
| 76      | 76         | 76             |         |
| 77      | 77         | 77             |         |
| 78      | 78         | 78             |         |
| 79      | 79         | 79             |         |
| 80      | 80         | 80             |         |
| 81      | 81         | 81             |         |
| 82      | 82         | 82             |         |
| 83      | 83         | 83             |         |
| 84      | 84         | 84             |         |
| 85      | 85         | 85             |         |
| 86      | 86         | 86             |         |
| 87      | 87         | 87             |         |
| 88      | 88         | 88             |         |
| 89      | 89         | 89             |         |
| 90      | 90         | 90             |         |
| 91      | 91         | 91             |         |
| 92      | 92         | 92             |         |
| 93      | 93         | 93             |         |
| 94      | 94         | 94             |         |
| 95      | 95         | 95             |         |
| 96      | 96         | 96             |         |
| 97      | 97         | 97             |         |
| 98      | 98         | 98             |         |
| 99      | 99         | 99             |         |
| 100     | 100        | 100            |         |

26

12

...treating castor oil for the purpose of obtaining a tung oil-type product. A. A. Ivanova and A. I. Bessalov. *Khimicheskaya Prom.* 1945, No. 12, 11-14. Dehydration of castor oil in the presence of several catalysts was studied. The purpose was to produce a drying oil of the tung-oil type. Treating castor oil for 4 hrs. at 275-300° to an acetyl no. 73.3 in the presence of 1% litharge yielded a product contg. 1.5% of the 9.11 isomer of linoleic acid. By heating in the presence of 3% metallic Zn and 1.5% Al<sub>2</sub>O<sub>3</sub> for 5.5 hrs. at the same temp. to an acetyl no. 34 a product was formed which contained 20.5% of the isomer. Further expts. were carried out with 5% oxalic acid and maleic or phthalic anhydride as catalysts. The temp. was 275-300° as only within this temp. range did the reaction proceed satisfactorily. Best results were obtained with maleic anhydride. The time required was 4.5 hrs.; further heating caused gelatinization. The optimum quantity of maleic anhydride was 5-7.5%. The product obtained from castor oil under these conditions was tested in varnishes, lacquers, and enamels. This product was of a quality between tung and linseed oil. The hardness and water-resistance of films made with maleic anhydride-modified castor oil resembled closely these properties in films made with tung oil. However, there was evidence of syneresis as in linseed oil films. The other catalysts were  $\beta$ -naphthalenesulfonic acid, Na<sub>2</sub>SO<sub>4</sub>, and NaHSO<sub>4</sub>. Of all the catalysts tried NaHSO<sub>4</sub> was the most effective. The optimum quantity is 2%, time 12 hrs., and temp. 245-50°. Films of NaHSO<sub>4</sub>-modified castor oil resemble tung-oil films; no syneresis was observed.

M. Huseh

IVANOVA, A. A.

PA 58T22

USSR/Chemistry - Linseed Oil  
Chemistry - Isomerization

Aug 1947

"Isomerization of Linseed Oil in the Presence of  
Metals," A. A. Ivanova, A. S. Petrova, Candidates Chem  
Sci, 11 pp

"Khim Prom" No 8

In recent years research has been concerned with isom-  
erization of linseed and other oils to find a sub-  
stitute for tung oil. Author presents in tabular  
form, with accompanying explanation, a series of tests  
conducted on linseed oil, with respect to isomeriza-  
tion in presence of metals. Zinc, calcium, mercury,  
tin, and several others found to give favorable re-  
sults.

58T22

CA  
 Formation of stable enols. A. A. Ivanova (Leningrad State Univ.). J. Gen. Chem. (U.S.S.R.) 17, 1110-23 (1947) (in Russian).—Studies were made on the isomerization of an oxide contg. a Ph group and a C=C bond, which can theoretically give isomers having  $-C(=O)H$  and  $-C(OH)H$  structures. The data obtained support the concept that the most stable isomer in an alko-keto system is that which corresponds to the state of the most nearly equal mutual satn. of the additive properties of all C atoms involved. Externally, this expresses itself by formation of addnl. conjugation in addn. to the already existing conjugation, thus tending to form a more nearly sym. mol. To EtMgBr (from 17 g. Mg and 57 g. EtBr) in 200 cc. Et<sub>2</sub>O was added 51 g. PhC<sub>2</sub>CH in 100 cc. Et<sub>2</sub>O; when the reaction ceased, 20 g. ClCH<sub>2</sub>COMe in 200 cc. Et<sub>2</sub>O was added and the mixt. was allowed to stand 48 hrs. Hydrolysis with dil. H<sub>2</sub>SO<sub>4</sub> gave 79 g. PhC<sub>2</sub>CC(CH<sub>3</sub>CH<sub>2</sub>)(OH)Me, b<sub>p</sub> 148-50°, d<sub>4</sub><sup>20</sup> 1.1194, d<sub>4</sub><sup>25</sup> 1.1063, d<sub>4</sub><sup>30</sup> 1.1085, d<sub>4</sub><sup>35</sup> 1.1094, n<sub>D</sub><sup>20</sup> 1.55598, n<sub>D</sub><sup>25</sup> 1.57068; this product is initially colorless, but turns dark. This (85 g.) in 200 cc. dry Et<sub>2</sub>O treated slowly with 60 g. powd.

KOH yields 46 g. PhC<sub>2</sub>CCMe<sub>2</sub>CH<sub>2</sub>O, b<sub>p</sub> 108-9°, d<sub>4</sub><sup>20</sup> 1.0403, d<sub>4</sub><sup>25</sup> 1.0233, d<sub>4</sub><sup>30</sup> 1.0278, d<sub>4</sub><sup>35</sup> 1.0262, n<sub>D</sub><sup>20</sup> 1.55317, n<sub>D</sub><sup>25</sup> 1.57516, a colorless oil with rose-like odor. It forms the glycol, m. 113°, very readily, even at room temp., in the presence of H<sub>2</sub>O and traces of HCl. The oxide does not isomerize on distn. or heating, as it forms a tar at 150°. ZnCl<sub>2</sub> does not react at room temp. and forms a tar at 80°; similar failure resulted with H<sub>2</sub>SO<sub>4</sub>. The

oxide (25 g.) and 2 drops 10% H<sub>2</sub>SO<sub>4</sub>, treated with steam and the products of the vigorous reaction distd. with steam, yielded PhC<sub>2</sub>CCMe<sub>2</sub>CHOH, b<sub>p</sub> 124-6°, d<sub>4</sub><sup>20</sup> 1.0710, d<sub>4</sub><sup>25</sup> 1.0190, n<sub>D</sub><sup>20</sup> 1.54854, n<sub>D</sub><sup>25</sup> 1.57563, in a lactimeter and gives pos. tests for enol structure (cherry color with FeCl<sub>3</sub>, acid reaction with litmus, yellow color with Na<sub>2</sub>CO<sub>3</sub>). Treatment of the enol (5.0 g.) with 1.5 g. CH<sub>3</sub>N<sub>3</sub> in ether gave the Me ether, b<sub>p</sub> 111-18°, d<sub>4</sub><sup>20</sup> 1.00069, d<sub>4</sub><sup>25</sup> 1.05239, d<sub>4</sub><sup>30</sup> 1.05656, n<sub>D</sub><sup>20</sup> 1.54504, n<sub>D</sub><sup>25</sup> 1.57197, has a pleasant odor. No aldehyde-like product could be detected. The distn. residue after the above isomerization of 25 g. oxide was 16 g.; extrn. with water gave 0.6 g. of the corresponding glycol, while the rest was composed of a viscous mass which could not be cleared or distd.; its mol. wt. was 351, indicating polymers of the oxide or of the isomerization product.

G. M. Kosolapoff

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"

**CIA-RDP86-00513R000619210020-0**

FINCHES. 11

**CIA-RDP86-00513R000619210020-0"**

144-1 A.A.

Subject : USSR/Chemistry AID P - 3426

Card 1/1 Pub. 152 - 11/18

Authors : Korshak, V. V. and A. A. Ivanova

Title : Dehydration of methyl ricinoleate

Periodical : Zhur. prikl. khim., 28, 5, 523-532, 1955

Abstract : Experiments were carried out in the presence of various catalysts of which sodium bisulfate was the most active. The dehydration of methyl ricinoleate in the presence of  $\text{NaHSO}_4$  attains 86.59% at  $250^\circ\text{C}$ . Seven tables, 11 references, 7 Russian (1914-1950).

Institution : None

Submitted : S 9, 1953

Film-formers based on semidrying oils. A. A. Izrael, *Izv. Akad. Nauk SSSR, Khim.* 28, 718-724 (1955). Characterized by oxidation, oxidized, and dehydrated) was examined as a film-former. Heating the oil results in decline of the Ac number, content, and content of hydroxy acids, indicating that oxidation is a possible reaction; the heating was run 2 hrs. Metallic acetates were found to be effective catalysts for oxidation of cottonseed oil, taken in 6.5% concentration of Mn, Pb, Cr, and Co were examined; the acetates were effective catalysts in the hydroxylation of the oil but also of dehydration and polymerization. The highest Ac number (31.35) was attained on heating to 150-60° for 5 hrs. but a specimen was obtained (without a catalyst) which had an Ac number of 62.2, this being obtained after 30 hrs. at 150°. This material, however, added much more O than could be accounted for by the HO group content. The highest content of O was attained by means of Cr acetate catalyst, less with Pb, and least with Co or Mn, but the highest content of HO groups was obtained with Mn salts. The oxidation thus increases the content of HO and carbonyl groups. Oxidation and subsequent dehydration increases the rate of drying of the oil with improved mech. character of the films. A film-forming oil similar in properties to linseed oil was obtained by oxidation in the presence of 7.5% pentaerythritol with Pb-Mn acetate and rosin, followed by dehydration in the presence of NaHSO<sub>4</sub>. Oxidation and dehydration of sunflower oil gave a film-forming oil usable without the addn. of pentaerythritol.

G. M. K.



"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"

CHINA/Chemical Technology. Chemical Products and Their  
Application. Lacquers. Paints. Lacquer-Paint  
Coatings.

H-30

Abs Jour: Ref. Zhur-Khimiya, No 11, 1958, 38174.

Author : Ivanova, A.A.

Inst : Not given.

Title : The Extraction of Drying Oil from Cotton Oil.

Orig Pub: Khuasyue shitsze, 1956, No 2, 87, 88.

Abstract: Translated. See RZhKhim, 1955, 15308.

Card : 1/1

IVANOVA, A. A. Doc Tech Sci -- (diss) <sup>nonisocative</sup> ~~the~~ obtaining of film-forming materials  
on the base of <sup>nonisocative</sup> ~~non~~ drying and <sup>semisicative</sup> ~~penalty-drying~~ oils." Len, 1957. 27 pp (Min of  
Higher Education USSR. Len Order of Labor Red Banner Technological Inst in  
Lensovet), 100 copies. List of author's works pp 26-27 (KL, 4-58, 82)

**"APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619210020-0**

**APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619210020-0"**

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"



IVANOVA, A.A.

Synthesis of film forming material based on nondrying or semidrying  
oils. Zhur. prikl. khim. 31 no.2:279-289 F '58. (MIRA 11:5)  
(Oils and fats)

L 3541-66 EWT(1) GW  
ACCESSION NR: AP5024410

UR/0286/65/000/015/0089/0090

AUTHORS: Kheyfets, M. Ye.; Terekhov, V. P.; Slivin, Yu. A.; Zdobnikov, Ye. T.;  
Ivanova, A. A.; Berezin, E. H.

TITLE: Device for measuring the gravitational force. Class 42, No. 173435

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 89-90

TOPIC TAGS: gravimeter, submarine

ABSTRACT: This Author Certificate presents a device for measuring the gravitational force from submarines and drifting ice. The device contains three quartz-metal pendulums mounted on the base plate of a thermostated support placed in an arrested Cardan suspension, arresting and locking devices for the pendulums, thermometers, a hygrometer, a triggering lever for each pendulum, a device for applying time marks to the photorecord of the pendulum oscillations, a control panel, and perturbing acceleration detectors. To increase the accuracy of the measurements and to simplify their processing, additional mirrors are mounted on the support plate so that the images of the transmitting diaphragms reflected from the outer pendulums are produced in the focal plane of the objective (see Fig. 1 on the Enclosure). To insure the uniform setting of the pendulums on the

L 3541-66

ACCESSION NR: AP5024410

axis of the arresting device, a template is installed which imparts a forward motion to a stop spring. The spring is kinematically coupled to the template and presses the end part of the pendulum knife edge onto a fixed support rigidly coupled to the support plate. For remote control of the pendulums, electric drives are mounted on the support, which are controlled from the panel and are kinematically coupled to the arresting and locking devices and the stop spring. To control the initial amplitudes and phases of the oscillation of the middle pendulum, an additional triggering lever with a driving frame is installed. To maintain the position of the center of gravity of the device when rewinding the film, a compensator is installed. The compensator is in the form of a weight moving with film feed along a screw which is kinematically coupled to the axle of the film spool. To simplify the arresting of the Cardan suspension, the arrestor in the form of a screw with a control wheel clamps the outer ring of the Cardan suspension through a plate of the inner ring to the support on the stand. To record the readings of a mercury thermometer on the common photorecord, an anamorphic adaptor is mounted on the support. Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 19Feb63

NO REF SOV: 000

Card 2/2

ENCL: 01

OTHER: 000

SUB CODE: ES

IMSHENETSKIY, A.A.; KASATKINA, I.D.; AVERBUKH, Z.K.; TUPITSYNA, R.S.;  
IVANOVA, A.A.; SHERSTYUK, I.A.

Production of proteolytic enzymes by *Bacillus mesentericus* and  
their use for regeneration of triacetate motion-picture films.  
Mikrobiologiya 33 no.4:719-726 JL-Ag '64. (MIRA 18:3)

1. Institut mikrobiologii AN SSSR i Shestkinskiy khimicheskiy  
zavod.

IVANOVA, A.A., VASIL'YEVA, S.A.: FALUNIN, A.F.: RAYZMAN, F.B., redaktor;  
MARTYNEENKO, D.P., redaktor; SOKOLOVA, R.Ya., tekhnicheskiy redaktor

[Direct system of long distance telephone operation] Nemodlennaya  
sistema ekspluatatsii mezhdugorodnykh telefonnykh svyazi. Moskva  
Gos. izd-vo lit-ry po voprosam svyazi i radio, 1953. 31 p.  
[Microfilm] (MLR 8:8)  
(Telephone)

IVANOVA, A.A.

USSR/Miscellaneous

Card 1/1 : Pub. 133 - 17/21

Authors : Ivanova, A. A.

Title : Methods for increasing efficiency of workers of a interurban telephone station

Periodical : Vest. svyazi 9, 29-30, Sep 1954

Abstract : Conditions under which many interurban telephone-station operators could not accomplish their work norms are described. Methods for increasing efficiency of those operators are discussed.

Institution : ...

Submitted : ...

IVANOVA, A.A.; KRISTAL'NYY, V.S.; FALUNDI, A.P.; MEDVEDEV, Ye.S.,  
otvetstvennyy red.; KOKOSOV, L.V., red.; MAZEL', Ye.I., tekhn.red.

[Interurban telephone stations] Mezhdugorodnye telefonnye stantsii.  
Moskva, Gos.ind-vo lit-ry po voprosam svyazi i radio, 1958. 371 p.  
(Telephone stations) (MIRA 11:6)

Ivanova, A

A

N/S  
753.41  
.19

Mezhdugorodnyye telefonnyye stantsii  
[Long distance telephone exchanges, by]  
A. A. Ivanova [i dr.] Moskva, Svyazizdat,  
1958.

371 p. illus., diagrs., graphs, tables.

"Literatura": p. 369



DRIATSKIY, N.M., inzh.; IVANOVA, A.A., inzh.; MARKOVA, G.L., inzh.

High-frequency tandem apparatus for 12 and 60-channel groups  
of telephone channels. Vest. svyazi 21 no.6:3-5 Je '61.

(Telephone)

(MIRA 14:9)

DRIATSKIY, N.M., inzh.; IVANOVA, A.A., inzh.; MARKOVA, G.L., inzh.

Apparatus for the separation of 60-channel telephone channel  
groups in multichannel high-frequency telephony systems.  
Vest. aviatsi 24 no.12:3-6 D '64 (MIRA 18:2)

1. The calculation of steady flow of water in a prismatic channel

by the method of the present paper with a comparison of them with

calculations by the method of the present paper. Study GHE no. 121:76-87

(MIRA 18:8)

KONOVALOV, G.S.; KUTSEVA, P.P.; KOLESNIKOVA, T.Kh.; IVANOVA, A.A.

Change in the chemical composition of natural water under  
the influence of sorption processes. *Gidrokhim.mat.*  
36:117-124 '64.

(MIRA 18:11)

1. *Gidrokhimicheskiy institut, Novocherkassk.* Submitted  
December 15, 1961.

S/078/62/007/011/002/005  
B101/B186

AUTHORS: Zhmud', Ye. S., Ivanova, A. B., Kotlyar, A. A., Ostapchenko, Ye. P.

TITLE: X-ray examination of melts in the  $\text{BaO} - \text{GeO}_2$  system

PERIODICAL: Zhurnal neorganicheskoy khimii, v..7, no. 11, 1962, 2581-2590

TEXT: Mixtures of  $\text{BaCO}_3$  with  $\text{GeO}_2$  in which both components varied between 0-100 mole% were sintered at 920-1250°C in air or at 920°C in a hydrogen atmosphere. X-ray spectra were recorded under  $\text{CuK}\alpha$  radiation using the aragonite type of  $\text{BaCO}_3$  and rhombohedral  $\text{GeO}_2$ . The lattice constants of these compounds agreed with published data (A. I. Kitaygorodskiy, Rentgenostrukturnyy analiz melkokristallicheskih i amorfnykh tel (X-ray Analysis of Fine-crystalline and Amorphous Substances), Gostekhnizdat, 1950)). Results. (1) Specimens sintered at 1050°C in air with a  $\text{BaCO}_3:\text{GeO}_2$  ratio = 1:1 formed a single phase. On the basis of data obtained by H. Koelmans, C.M.C. Verhagen (J. Electrochem. Soc., 106, 677 (1959)), the single phase was identified as  $\text{BaGeO}_3$ ; it was present in a ratio of up to 1:3. Using  $\text{BaCO}_3:\text{GeO}_2 = 1:2$ ,  $\text{BaGe}_2\text{O}_5$  was formed, and using ratios of 2:8 and 1:3, the specimen contained unchanged  $\text{GeO}_2$  as well as  $\text{BaGe}_2\text{O}_5$ . Using Card 1/3

X-ray examination of melts in the...

S/078/62/007/011/002/005  
B101/B186

the ratios 6:4, 2:1, 7:3, 3:1, 4:1, and 5:1,  $Ba_2GeO_4$  was formed which, at 2:1, is present as a single phase; this was identified from the similarity of its structure to that of  $Ba_2SiO_4$  (A. Austin, J. Amer. Ceram. Soc., 30, 218 (1947)). Using even higher proportions of  $BaCO_3$  gave rise to lines which were attributed to various barium hydroxides. (2) At  $1250^\circ C$  in air it was found that specimens containing 0-30%  $GeO_2$  and 100-70%  $BaO$  produced  $BaO + Ba_2GeO_4$ ; those with a content of 30-50%  $GeO_2$  produced  $BaGeO_3 + Ba_2GeO_4$ ; those with 50-100%  $GeO_2$  gave rise to  $BaGeO_3 + GeO_2$ ; but  $BaGe_2O_5$  is not formed, for at this temperature it readily decomposes into  $BaGeO_3 + GeO_2$ . (3) At  $920^\circ C$  in a hydrogen atmosphere, using a  $BaO:GeO_2$  ratio of 9:1, the phase composition was  $BaCO_3 + X$  + traces of  $BaGeO_4$ , where X denotes an unidentified phase probably consisting of various barium hydroxides. For ratios from 5:1 to 7:3 the composition is  $Ba_2GeO_4 + X$ ; at 2:1 the  $Ba_2GeO_4$  occurs as a single phase; using 6:4 to 1:3 there are traces of Ge along

Card 2/3

ZHMUD', Ye.S.; IVANOVA, A.B.; KOTLYAR, A.A.; OSTAPCHENKO, Ye.P.

X-ray diffraction study of alloys in the system BaO - GeO.  
Zhur, neorg.khim. 7 no.11:2581-2590 N '62. (MIRA 15:12)  
(Barium oxide) (Germanium oxide)  
(X rays—Diffraction)

IVANOVA, A.D.; MALOZEMOV, I.I., arkhitekto, redaktor; TUROVSKIY, B., redaktor;  
GARSHANOV, A., tekhnicheskii redaktor.

[City districts with privately-owned dwellings] Gorodskie raiony  
usadebnoi zastroiki. Pod red. I.I. Malozemova. Kiev, Izd-vo Akad.  
arkhit. USSR, 1952. 81 p. [Microfilm] (MIRA 8:2)  
(Ukraine--Dwellings) (Ukraine--City planning)



IVANOVA, A

D

Planirovka i Zastroyka Gorodskikh zhilykh rayonov (planning and building of urban residential areas) Pod Red. N. P. Severova. Kiyev, Izd-vo Akademii arkhitektury ukrainskoy sssr, 1953.

151 P illus., diags., tables.

At head of title: Akademiya arkhitektury ukrainskoy sssr. Institut gradostroitel'stva.

SO: 4N/5  
885.1  
.19

*IVANOVA, A.D.*

USSR/Biology - Endocrinology

Card 1/1 : Pub. 22 - 49/49

Authors : Ivanova, A. D.

Title : The thyroid gland of a sturgeon in the period of spawning migration and spawning

Periodical : Dok. AN SSSR 98/4, 693-696, Oct. 1, 1954

Abstract : The thyroid glands of deep-river sturgeon were investigated to analyze the processes taking place in this organ during spawning migration and spawning in connection with the biological multiplication characteristics. Results are described. Fourteen references: 11-USSR; 2-German and 1-USA (1935-1953). Illustrations.

Institution : ...

Presented by : Academician E. N. Pavlovskiy, April 14, 1954

USSR, Biology - endocrinology

Card 1/1 Pub. 22 - 40/40

Authors : Ivanova, A. D.

Title : Thyrotropic effect of hypophysin injection on sturgeon

Periodical : Dok. AN SSSR 99/2, 333-336, Nov 11, 1954

Abstract : The functional connection between hypophysis and the thyroid gland of fish is explained. Two types of thyrotropic reactions were observed in the thyroid glands of fish during hypophysial injection. Nine USSR references (1933-1954). Illustrations.

Institution : Ministry of Fish Industry USSR, Laboratory of Fish Breeding

Presented by: Academician E. N. Pavlovskiy, May 14, 1954

IVANOVA, A. E.

Agricultural Machinery

Experiment of the Bel'tsy Machine Tractor Station in mechanizing collective farm sections.  
Sots. zhiv. no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 19<sup>52</sup>/<sub>52</sub>, Uncl.

Fuel Abstracts  
Vol. XV, No.2  
Feb. 1954  
Other Prime Movers.

✓ 1548. UTILIZATION OF WINNIEBOWS BY HOLDAVIAN COLLECTIVE FARM.  
Ivanova, A.B. and Neehiporova, P.S. (Motsial. Zhivoinov. (Social. Aniz  
Rust., Moscow), Nov. 1952, vol. 14, 87-90).

YEFREMOVA, Anna Ignat'yevna; Geroy Sotsialisticheskogo Truda; IVANOVA, Anna Dmitriyevna; KOMAROVA, T.F., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[In the struggle for the seven-year plan; from the work practice of the Kirov Collective Farm, Shilovo District, Ryazan Province]  
V bor'be za semiletku; iz opyta raboty kolxosa imeni Kirova Shilovskogo raiona Riazanskoj oblasti, Moskva, Izd-vo "Znanie," 1960.  
30 p. (MIRA 13:5)

1. Predsedatel' kolxosa imeni Kirova Shilovskogo rayona Riazanskoy oblasti (for Yefremova).  
(Collective farms)

IVANOVA, A.D. [Ivanova, H.D.], kand.biolog.nauk

Absorption of radioactive calcium in the body of healthy swine of different age groups and in the body of swine ill with infectious atrophic rhinitis. Visnyk sil'hosp.nauky 4 no.8:116-118 Ag '61.  
(MIRA 14:7)

1. Belotserkovskiy sel'skokhozyaystvennyy institut.  
(Calcium in the body) (Swine---Diseases and pests)

GOLOSHCHAPOV, Yu.N.; TEREKHINA, M.T.; AYZINBUDAS, L.B.; IVANOVA, A.D.

International Congress of Veterinarians. Veterinariia 41  
no.1:111-112 Ja '65.  
(MIRA 18:2)



IVANOVA, A.F., kand.med.nauk

Changes in the white blood of guinea pigs following sensitization and desensitization in radiation sickness. Akt.vop.persl.krovi no.6:104-109 '58.  
(MIRA 13:1)

1. Radiobiologicheskaya laboratoriya Leningradskogo instituta pereli-vaniya krovi (zav. laboratoriyey - kand.med.nauk G.M. Murav'yev).  
(RADIATION SICKNESS) (LEUCOCYTES)

IVANOVA, A.G.

Clinical aspects of severe poisoning by methyl ether of methacrylic acid. Gig.truda i prof.zab. 3 no.4:48 J1-Ag '59.

(MIRA 12:11)

(METHACRYLIC ACID--TOXICOLOGY)

158170

32345  
8/190/62/004/001/006/020  
B101/B110

AUTHORS: Reykhufel'd, V. O., Ivanova, A. G.

TITLE: Synthesis of linear dimethyl methyl polysiloxanes by  
copolymerization of cyclic siloxanes

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 1, 1962, 30-36

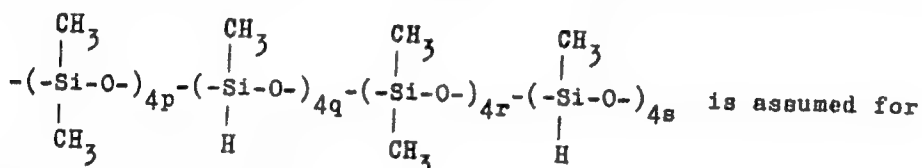
TEXT: Linear polymers containing reactive Si-H bonds were synthesized by copolymerization of octamethyl cyclotetrasiloxane (I) with tetramethyl cyclotetrasiloxane (II), or pentamethyl cyclopentasiloxane (III). I was obtained by fractional distillation of the industrial product. Optimum conditions for synthesizing II and III: 10-15 min hydrolysis of methyl dichloro silane with ice in ethereal solution. Vacuum distillation of liquid products (yield 93-94%) yielded up to 80% cyclic siloxanes, mainly II and III, which were isolated by rectification. Copolymerization was conducted at 100-110°C by 3%  $Al_2(SO_4)_3 \cdot 2H_2O$  as catalyst with various ratios of initial monomers. With 15% by weight of II in the initial mixture, dimethyl methyl polysiloxane (molecular weight: 110, 800) containing 21.68% by weight of  $CH_3HSiO$  links was obtained after 8-11 hrs. After 30 hrs  
Card 1/3

32345

Synthesis of linear dimethyl ...

S/190/62/004/001/006/020  
B101/B110

10% by weight of III yielded the same polymer with a molecular weight of 84,620, containing 14.13% by weight of  $\text{CH}_3\text{HSiO}$  links. The degree of conversion was 30-65%. Fractional precipitation of the polymer from a benzene solution by  $\text{CH}_3\text{OH}$  yielded fractions of constant composition and a constant content of reactive hydrogen (determined by decomposition of the polymer dissolved in benzene by means of alcoholic KOH in the Tserevitinov apparatus). The structure



the polymer obtained from II + I. For the copolymer from III + I, 4q and 4s are replaced by 5q and 5s, respectively. According to F. R. Mayo, F. M. Lewis (J. Amer. Chem. Soc., 66, 1594, 1944) the copolymerization constants were calculated to be  $r_1 = 2.2 \pm 0.3$ ,  $r_2 = 0.31 \pm 0.03$  for II + I; and  $r_1 = 1.2 \pm 0.16$ ,  $r_2 = 0.35 \pm 0.04$  for III + I. It is concluded that (1)

Card 2/3

32345

Synthesis of linear dimethyl ...

S/190/62/004/001/006/020  
B101/B110

alternation of monomer units takes place since  $r_1 \cdot r_2 < 1$ ; (2) azeotropic mixtures do not form since  $p = (1 - r_1)/(1 - r_2) < 0$ ; (3) the polymerization mechanism is proved to follow the conversion of cyclic into linear polysiloxanes due to the formation of copolymers with an accumulation of  $\text{CH}_3\text{HSiO}$  links, and because low-molecular products cannot be isolated even at the beginning of copolymerization. A. I. Bondarenko and N. N. Sokolov are mentioned. There are 1 figure, 5 tables, and 10 references: 7 Soviet and 3 non-Soviet. The four most recent references to English-language publications read as follows: R. L. Merker, M. J. Scott, J. Polymer Sci., 43, 297, 1960; W. Pathode, D. Wilcock, J. Amer. Chem. Soc., 68, 364, 1946; K. Kojima, J. Chem. Soc. Japan. Pure Chem. Sec., 76, 1205, 1955; R. O. Sauer, W. J. Scheiber, S. D. Brewer, J. Amer. Chem. Soc., 68, 962, 1946.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensovet  
(Leningrad Technological Institute imeni Lensovet)

SUBMITTED: January 19, 1961  
Card 3/3

AMBROK, G.S.; GORDOV, A.N.; IVANOVA, A.G.

Method for determining the thermal inertia of certain types of instruments for surface temperature measurement. Teplofiz. vys. temp.  
1 no.3:460-462 N.D. '63. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut vysokikh temperatur.

A. V. KOGAN, E. I. SUDOVYA, A. P. MEZHAYEV, V. P. KRYKHSIEL'D, V. P. SUDOVYA, V. N. GRUBER, V. N.

**TITLE:** Polymerization of octamethylcyclotetrasiloxane in the presence of acid catalysts

**SOURCE:** Vyssokomolekulyarnyye soyedineniya, v. 5, no. 8, 1963, 1153-1159

**TOPIC TAGS:** siloxane, polymerization, catalyst, sulfuric acid, potassium dichromate, potassium permanganate

**ABSTRACT:** The kinetics of octamethylcyclotetrasiloxane (OMCTS) polymerization by sulfuric acid in the presence of promoters was investigated by the conventional viscosimetric method and by an ultrasonic technique described in an earlier paper by E. V. Kogan, N. I. Smirnov, and A. P. Mezhaev (Zh. prikl. khim., 34, 541, 1961). Into a 50-ml flask were placed 25 ml of OMCTS to which were added (under stirring) various amounts of sulfuric acid, potassium permanganate, or potassium dichromate solutions. It was found that the stirring frequency had no effect on the process. In the absence of oxidizers, 2% by weight of concentrated sulfuric

Card 1/2

1. 1. 1. 1. 1.

ACCESSION NR: AP300,701

and resulted within a 4-6 hour interval in a maximum polymerization level of 80%. Additional amounts of sulfuric acid increased the rate of polymerization. It is shown that the dilution of the acid and the replacement of the sulfuric acid by oleum. A similar detrimental effect was observed when 0.5-1.5 gram-equivalent of potassium permanganate or 0.1-1.0 gram-equivalent of potassium dichromate was added per gram-equivalent of sulfuric acid, the degree of polymerization inhibition increasing with the amount of oxidant added. It was found that at 60C (in the presence of 1% concentrated sulfuric acid without oxidants) a polymerization level of 80% was reached within 4 hours, while at 20C it took 9 hours to achieve a 30% polymerization. Orig. art. has: 1 formula and 9 charts.

ASSOCIATION: Leningradskiy technologicheskii institut im. Lomoveta (Leningrad Technological Institute)

SUBMITTED: 19Jan62

DATE ACQ: 28Aug63

INCL: 00

SUB CODE: CH

NO REF SOV: 010

OTHER: 004

Card 2/2



ZIL'BERMAN, B.Yu.; IVANOVA, A.G.; PUSHLENKOV, M.F.

Study of equilibrium between liquid and vapor in the system  
 $\text{HNO}_3 - \text{HCl} - \text{H}_2\text{O}$  at boiling point and under atmospheric pressure.  
Zhur. prikl. khim. 36 no.5:1143-1145 My '63. (MIRA 16:8)

(Nitric acid) (Hydrochloric acid)  
(Phase rule and equilibrium)

DMITRIYEVA, S.A.; IVANOVA, A.I.; IVANOVA, Ye.A.; PETRUN'KINA, A.M.;  
TSATSKIS, Ye.N.

Influence of hydrogenation of fats on the assimilation of nitrogen,  
mineral salts, and fats, and on the amount of unsaturated fatty  
acids in the blood and feces. Trudy Inst. fiziol. 9:415-424 '60.  
(MIRA 14:3)

1. Gruppya po izucheniya voprosov biokhimi pitaniya (zaveduyushchaya -  
A.M. Petrun'kina) Instituta fiziologii im. I.P.Pavlova.  
(FAT METABOLISM) (MINERALS IN THE BODY)  
(ACIDS, FATTY)

PATSUKOV, N.G., professor, doktor tekhnicheskikh nauk; IVANOVA, A.L.,  
inzhener-khimik.

Tasks of chemical control in establishing the water cycle of high-  
pressure boilers. Trudy MEI no.11:152-172 '53. (MLBA 7:11)  
(Steam boilers)

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"

AUTHOR: Ivanova, A.I.

3-10-23/30

TITLE: Students Acquire Working Habits (Uchashchiyesya poluchayut rabochiye navyki)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 10, p 70 (USSR)

ABSTRACT: The author describes the practical training organized at the Tashkent Institute of Textiles in 1955/56.

During the third semester, three hours per week were set apart for work on various textile machines. During the 4th semester these operations were performed at the Tashkent Textile Combine so that the students could apply their knowledge under industrial conditions. When there was a lack of workers in the factory, students filled in for them. The last day the students operated the machines alone.

The trainees received certificates of qualification.

ASSOCIATION: The Tashkent Institute of Textiles (Tashkentskiy tekstil'nyy institut)

AVAILABLE: Library of Congress

Card 1/1

137-58-1-1391

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 186 (USSR)

AUTHORS: Ivanova, A.I., Orlov, B.M.

TITLE: High-speed Nickel Plating (Bystroye nikelirovaniye)

PERIODICAL: Materialy po obmenu opytom i nauchn. dostizh. v med. prom-sti, 1957, Nr 3 (22), pp 87-89

ABSTRACT: A well-defined technology for a nickel-plating procedure permitting deposition of 0.5-1.0 micron of bright Ni coating per minute without defects of any kind has been developed at the Mozhaysk Medical Instruments Plant. The composition of the electrolyte and a detailed description of the high-speed nickel-plating technology is presented. Faultless performance of the procedure is dependent primarily upon the choice of appropriate combination of equipment. A description of the equipment is provided (baths, steam heating devices, air blowers, a 2-chamber diaphragm pump for continuous filtration during the operation, a filter press, and a rectifier).

D. G.

Card 1/1

1. Nickel plating—Processes

IVANOVA, A. I.

24-12-8/24

AUTHOR: Ivanova, A. I. (Moscow)

TITLE: Spiral motion of a viscous incompressible liquid.  
(On the theory of a screw). (Vintooobraznoye  
dvizheniye vyazkoy neszhimayemoy zhidkosti).  
(K teorii shneka).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh  
Nauk, 1957, No.12, pp.46-50 (USSR)

ABSTRACT: For transporting viscous liquids, plastic substances, etc.  
frequently screws are used which rotate inside a tube.  
According to Carley et alii (Ref.1), the movement of a  
liquid in the screw can be sub-divided into four  
simpler flows, namely, a part of the liquid is carried  
away by the moving screw wall whereby it is assumed that  
the canal of the screw is opened out flat (Ref.2); a  
part of the liquid moves in the opposite direction due  
to the effect of the pressure in the straight rectangular  
tube with immobile walls, a problem solved by Boussinesq  
in 1868 (Ref.3) and solved in a more simple manner by  
Carley, J. (Ref.1); an insignificant part of the liquid  
seeps backwards through the gap between the screw and  
the tube wall (Ref.1); mixing takes place and thus also  
breaking up of the material in the screw system, which,

Card 1/3

Spiral motion of a viscous incompressible liquid. (On the theory of a screw). 24-12-8/24

however, is usually disregarded. Furthermore, Carley developed the unidimensional theory for small screws and he also attempted to take into consideration heat exchange. However, he did not take into consideration the temperature dependence of the viscosity and, therefore, his conclusions are not fully justified. Mori and Ototake (Refs.4 and 5) studied the movement of a plastic material in small screws but they did not take into consideration the intensive mixing of the plastic material which takes place in such systems. Maillefer, C. (Ref.6) solved the linearised Nave-Stokes equation, utilising the solution of Boussinesq. All these authors did not take into consideration the real geometry of the screw, considering only the flow of the material inside a straight rectangular tube with one mobile wall. In this paper an attempt is made to calculate theoretically the transportation of viscous liquids by a large screw and the problem is solved in spiral coordinates. A formula is derived for the flow rate of the material as a function of the pressure and of the angular speed of movement of the screw rod. In

Card 2/3

24-12-8/24  
Spiral motion of a viscous incompressible liquid. (On the theory of a screw).

the first paragraph the Nave-Stokes equations are derived for spiral coordinates; in the second paragraph an accurate formulation is given of the problem, expressing the conditions for the speeds along the walls of the screw canals by the Eqs.(2.1), (2.2), (2.3); in para.3 the method of the small parameter is used for solving the obtained relations. By using the graphs given in the paper it is easy to determine, for a given screw rotating with a certain angular speed, the dependence of the flow rate on the pressure. There are 2 figures and 8 references, two of which are Slavic.

SUBMITTED: June 18, 1957.

AVAILABLE: Library of Congress.

Card 3/3



AUTHOR: Ivanova, A.I.

SOV/179-59-5-40/41

TITLE: Correction to the Paper by A.I. Ivanova: "Screw-like  
Motion of a Viscous Incompressible Liquid (Screw Theory)"  
Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh  
nauk, Nr 12, 1957

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh  
nauk, Mekhanika i mashinostroyeniye, 1959, Nr 5,  
pp 182-183 (USSR)

ABSTRACT: Errors in sign which occurred in the original paper  
are corrected and revised versions of Fig 1 and 2 are  
given.

SUBMITTED: February 25, 1959

Card 1/1

IVANOVA, A. I. Cand Phys-Math Sci -- (diss) <sup>Stationary spiral-</sup> "The steady-state ~~non-~~  
shaped motion of viscous incompressible liquids (~~for~~ <sup>for</sup> the theory of the  
infinite screw)." Mos, 1958. 4 pp (Mos State Univ im M. V. Lomonosov),  
150 copies (KL, 52-58, 98)

DYKHANOV, N.N.; IVANOVA, A.I.

Synthesis of the chlorine analogue of butamide. Med.prom. 14  
no.2:13-17 F '60. (MIRA 13:5)

1. Khimiko-farmatsevticheskiy zavod "Akrihkin".  
(URRA)

*Ivanova, Antonina Ivanovna*

GINZBURG, Anna Il'ichna; IVANOVA, Antonina Ivanovna; SHABAROV, N.V., red.:  
ROSSOVA, S.M., red.izdatel'stva; GUROVA, O.A., tekhn.red.

[Conditions of sediment accumulation and coal formation in the  
eastern Fergana (Uzgen) coal basin] Uslovia osadkonakoplenia i  
ugleobrazovania v Vostochnoferganskom (Uzganskom) ugol'nom basseine.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane neдр.  
1956. 146 p. (Leningrad. Vsesoiuznyi geologicheskii institut. Trudy,  
vol.14) (MIRA 10:10)

(Fergana--Coal geology)

IVANOVA, A. I.

"Veterinary and sanitary control of food products."

Veterinariya, Vol. 37, No. 5, 1960, p. ~~43~~ 44

*Chiz, Meat-Fat and Food Control Station, Central Market, Ryazan*

USSR / Farm Animals. Cattle. q

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 21214

Author : Ivanova, ~~A. I.~~  
Inst : Moscow Veterinary Academy  
Title : Jersey Cattle Under the Conditions of the Krasnaya  
Zarya No 1 Kolkhoz of Moscow Oblast'

Orig Pub : Tr. Mosk. vet. akad., 1957, 19 Vyp. 2, oh. 2, 106-118

Abstract : Jersey cattle that was imported from Denmark and that was born in this kolkhoz, acclimatized well and is hardly inferior to cows of the same age in their native country as far as productivity is concerned. For 300 days of lactation, an average of 2822 kg of milk with the milk's fat content of 5.84 percent of 164.8 kg of milk fat were obtained; the milk of these cows contained 429.5 kg of solid substances, 93.1 kg of caseins, 134.8 kg of milk sugar, while correspondingly 3067 kg, 3.6

Card 1/2

S/106/62/000/002/008/010  
A055/A101

9.2186

AUTHORS: Velikin, Ya. I., Zelyakh, E. V., Ivanova, A. I.

**TITLE:** Single-mesh narrow-band magnetostrictive filters

PERIODICAL: Elektrosvyaz' no. 2, 1962, 51 - 59

TEXT: In the present article are described some of the results of the study of magnetostrictive ferrite-core resonators and of filters composed of such resonators, undertaken by the authors. Only single-mesh narrow-band filters are examined in this article, by the analytical method already described by two of the authors (Zelyakh and Velikin, Radiotekhnika, no. 7 - 8, 1946). The schematic diagram of these filters is shown in Fig. 1a, Fig. 1b being its equivalent circuit. Neglecting, as a first approximation, the losses in the filter elements, the authors derive expressions permitting the calculation of the filter elements  $L_{01}$ ,  $L_{02}$ ,  $L_1$ ,  $L_2$ ,  $C_1$  and  $C_2$  (or the elements  $L_0$ ,  $L$ ,  $C_1$  and  $C_2$  when  $L_1 = L_2 = L$  and  $L_{01} = L_{02} = L_0$ ). They next calculate the components of the magnetostrictive resonator impedance  $Z = R + iX$ . Formulae are deduced, first for  $R_1$  and  $X_1$  and then for  $R_2$  and  $X_2$ , i.e. for the resistance and reactance of the resonators forming the first and the second arm of the filter, respectively. Ex-

Card 1/2

10087

S/106/62/000/004/007/010  
A055/A101

9.2/86

AUTHORS: Velikin, Ya.I.; Zelyakh, E.V.; Ivanova, A.I.

TITLE: Rejection magnetostrictive filters

PERIODICAL: Elektrosvyaz', no. 4, 1962, 48 - 54

TEXT: A method for calculating bridge-type rejection filters consisting of magnetostrictive resonators and condensers is described. The rejection magnetostrictive filter is shown schematically in Figure 1, the resonator being replaced by its equivalent circuit (the losses in the filter elements are neglected). The impedances of the arms are:

$$Z_1 = i 2 \pi f L_0 \frac{f_2^2 - f^2}{f_1^2 - f^2}; \quad Z_2 = \frac{1}{i 2 \pi f C_2}, \quad (1)$$

where  $f_1$  and  $f_2$  are, respectively, the antiresonant and the resonant frequency of the resonator. The filter characteristic impedances  $Z_{C0}$  and  $Z_{C\infty}$  (at  $f = 0$  and  $f \rightarrow \infty$ , respectively) being but little different, the rated impedance of the filter is taken equal to

Card 1/4



Rejection magnetostrictive filters

S/106/62/000/004/007/010  
A055/A101'

$$Z_m = \sqrt{\frac{L_0}{C_2}} = \frac{R_0}{\alpha}, \quad (3)$$

$R_0$  being the load resistance and  $\alpha$  the matching coefficient. The graphs showing the frequency-dependence of  $Z_1$ ,  $Z_2$ ,  $b_c$  (characteristic attenuation) and  $Z_c$  reveal that the examined circuit is a rejection filter whose characteristic rejection band is situated between the frequencies  $f_1$  and  $f_2$ . Within this band (at  $f_\infty$ ), occurs the attenuation pole,  $f_\infty$  being deduced from formula:

$$f_\infty^2 (f_2^2 - f_\infty^2) = F_0^2 (f_\infty^2 - f_1^2), \quad (4)$$

where

$$F_0 = \frac{1}{2\pi\sqrt{L_0 C_2}}. \quad (5)$$

The formulae permitting the calculation of the filter elements are:

$$L_0 = \frac{Z_m}{2\pi F_0}, \quad L_1 \approx L_0 \frac{2\Delta}{f_1}, \quad C_1 = \frac{1}{4\pi^2 f_1^2 L_1}, \quad C_2 = \frac{1}{2\pi F_0 Z_m}, \quad (6)$$

Card 2/4

S/106/62/000/004/007/010.  
A055/A101

Rejection magnetostrictive filters

$$F_0 = f_\infty \sqrt{\frac{f_2^2 - f_\infty^2}{f_\infty^2 - f_1^2}} \approx f_\infty \sqrt{\frac{f_2 - f_\infty}{f_\infty - f_1}} \quad (7)$$

$\Delta = f_2 - f_1$  being the width of the characteristic rejection band. The maximum width of the rejection band is:

$$\Delta_{\max} = \frac{1}{2} K^2 f_1 \quad (8)$$

K being the electromechanical coupling coefficient. The author next considers the case when two rejection bands are necessary (two series-connected magnetostrictive resonators being used) and deduces a formula giving  $\Delta_{\max}$  for this case. He calculates then the working attenuation of the single-mesh filter. This attenuation is:

$$b_{\text{work}} = \ln \sqrt{1 + \frac{1 - t^2}{4} \frac{[(\alpha - \frac{1}{\alpha}) \eta + \alpha + \frac{1}{\alpha}]^2}{(\eta - t)^2}}, \quad (16)$$

where  $t = \frac{\Delta_\infty}{\Delta}$ ,  $\Delta_\infty = 2(f_\infty - f_a)$ ,  $f_a = \frac{1}{2}(f_1 + f_2)$ ,  $\eta = \frac{2(f - f_a)}{\Delta}$ . An

Card 3/4

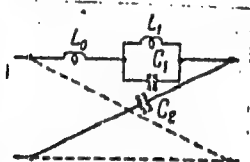
Rejection magnetostrictive filters

S/106/62/000/004/007/010  
A055/A101

analogous formula is also deduced for the working attenuation of the two-mesh filter. Some results of a practical application of the above formulae are given at the end of the article. The Soviet personalities mentioned in the article are: D.G. Yatsenko, T.M. Novikova, N.D. Bosyy. There are 9 figures and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: October 28, 1961

Figure 1b.



Card 4/4

SIDOROVA, N.G.; IVANOVA, A.I.

Cycloalkylation of aromatic compounds. Part 23: Reaction of  
benzene with 2- and 3-cyclohexylcyclohexanols. Zhur.ob.khim. 32  
no.9:2790-2791 S '62. (MIRA 15:9)

1. Tashkentskiy gosudarstvennyy universitet imeni V.I. Lenina.  
(Benzene) (Cyclohexanol)

VELIKIN, Ya.I.; ZELYAKH, E.V.; IVANOVA, A.I.

Wide-band magnetostrictive filters. Elektrosвяз' 17 no.10:1-9 0  
'63. (MIRA 17:1)

IVANOVA, A.I.; CHECHULIN, A.S.

Comparative evaluation of chemotherapeutic preparations based on  
their effect on the transplanted P<sub>3</sub> agar-osteosarcoma in rats.  
Trudy 1-MMI: 16:273-285 '62. (MIRA 17:4)

1. Iz Tsentral'noy nauchno-issledovatel'skoy laboratorii imeni  
S.I.Chechulina (zav. - kandidate nauk A.S.Chechulin).

THEY ARE, A. T.

"Investigation of the Structure of Lead-Related Glass." Stand. Inst. Sci., All-Union  
Sci. Inst. of Glass, 13 Feb 54. Dissertation (Vladimir Iosad, 11 Feb 54)

SO: SU: 116, 11 Aug 1954

**"APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619210020-0**

**APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619210020-0"**



"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619210020-0"

BARTENEV, G.M., professor, doktor tekhnicheskikh nauk; IVANOVA, A.I.

Methods of testing glass for strength. Stek. i ker. 13 no.7:12-15  
J1 '56. (Glass--Testing) (MIRA 9:9)

*Ivanova, A.I.,*  
IVANOVA, A.I.; KUTUKOV, S.S.

Glassware decoration by the method of stencil printing. Leg. prom.  
17 no.10:43-45 O '57. (MIRA 10:12)  
(Glassware) (Design, Decorative)

IVANOVA, A.I.; KUTUKOV, S.S.; KRYLOVA, V.V.

Expand the set of transparent silicate colors used for decorating  
glassware. Leg. prom. 18 no.9:48-49 S '58. (MIRA 11:10)  
(Glass painting and staining)

AUTHORS: Bartenev, G. M., Ivanova, A. I.

SOV/57-28 7-18/35

TITLE: The Strength of Quenched Glasses (Prochnost' zakalennykh stekol)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Vol. 28, Nr 7, pp.1467-1476 (USSR)

ABSTRACT: First the formula for the calculation of the strength with respect to expansion and bending (1) is deduced. It is shown that for determining the strength of the quenched glass (without destroying it) two magnitudes must be evaluated; viz.  $P_0$  = the strength of the burned glass which is determined experimentally, and  $\kappa$  = a dimensionless factor which establishes a relation between the surface tensions and the tensions in the middle of the glass (where the maximum of expansion occurs). The authors investigated the strength of a flat glass with respect to cross-bending as well as to a symmetrical bending, and also the bending strength of the rods. The following was found: 1) The strength of quenched glasses depends on the degree of quenching, the character

Card 1/3

SOV/ 57- 23-7-18/35

The Strength of Quenched Glasses

of the distribution of internal stress and the mode of investigation. 2) The destruction begins at the weakest points. These are the edges and the surface. Depending on the degree of quenching, the solidifying of the edges in quenching and the mode of investigation, the destruction in the one cases begins at the edges and in other cases it starts from the surface. In glasses that had not been quenched the surface strength is by 300 to 400 kg/cm<sup>2</sup> higher than the strength of the edges. In quenched glasses the difference varies depending on the degree of edge solidification, it is, however, not greater than the above mentioned value. 3) The strength of the quenched glasses very weakly depends on the scale factor and on the chemical composition. 4) The evaluation of the experimental data permits to recommend simple formulae for the calculation of the strength of quenched glasses. There are 6 figures and 11 references, 6 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut stekla, Moskva  
(All-Union Scientific Research Institute for Glass, Moscow)

Card 2/3

ZAK, Aron Faybyshovich; ASLANOVA, M.S., retsenzent; IVANOVA, A.I.,  
retsenzent; DUKHOVNIY, F.N., red.; TRISHINA, L.A., tekhn.  
red.

[Physicochemical properties of glass fibers] Fiziko-  
khimicheskie svoistva steklianogo volokna. Moskva, Rostekh-  
izdat, 1962. 224 p. (MIRA 15:11)  
(Glass fibers)

CHERNYAK, M.G., red.; ASLANOVA, M.S., red.; ZAK, A.P., red.;  
IVANOVA, A.I., red.; KUTUKOV, S.S., red.; PANASYUK, V.I.,  
red.; SHKOL'NIKOV, Ya.A., red.; VASKEVICH, D.N., red.;  
SHPAK, Ye.G., tekhn.red.

[Methods for testing and quality control of fiber-glass materials]  
Metody issledovaniia i kontrolya steklovoloknistykh materialov;  
sbornik statei pod red. M.G. Cherniaka. Moskva, Goskhimizdat,  
1963. 92 p. (MIRA 16:6)

1. Vsesoyuznyi nauchno-issledovatel'skii institut stekliannogo  
volokna.

(Glass fiber industry--Testing)



L 53736-65 EPF(c)/EPR/BPA(s)-2/EWT(m)/EWP(1)/EWP(b)/EWP(o) Pq-4/Pr-4/Pe-4/Pt-7  
SM/WH

ACCESSION NR: AP5015562

UR/0286/65/008/008/0119/0119  
666.189.211 62  
8

AUTHOR: Shkol'nikov, Ya. A.; Polik, B. M.; Karakhanidi, N. G.; Ivanov, P. K.; Roher, E. L.; Ulybyshov, V. V.; Alen'kin, A. T.; Bugrova, N. N.; Simakov, D. P.; Shchipin, I. Ye.; Gur'yeva, Yu. N.; Yefimova, M. I.; Nechayeva, Ye. S.; Yesilkina, K. M.; Ivanova, A. I.; Dayn, E. P.; Nabatov, V. G.; Novoyevskaya, Ye. A.; Kukin, Ye. B.; Balashov, V. N.; Geras, L. B.

TITLE: Glass for glass fibers. Class 32, No. 170369 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 119

TOPIC TAGS: glass, glass fiber

ABSTRACT: An Author Certificate has been issued for a glass suitable for making glass fibers. To increase chemical durability, to prevent corrosion of alloys of aluminum and other light metals, and to improve processability, the glass is formulated to contain: 58-63% SiO<sub>2</sub>, 2-4% B<sub>2</sub>O<sub>3</sub>, 6-8% Al<sub>2</sub>O<sub>3</sub>, 0.5-1.5% F<sub>2</sub>O<sub>3</sub>, 4-6% ZrO<sub>2</sub>, 6-8% CaO, 12-13% Na<sub>2</sub>O, and 1.5-2% K<sub>2</sub>O. [SM]

ASSOCIATION: none

Card 1/2

ACC NR: AP7002541 (A) SOURCE CODE: UR/0413/66/000/023/0017/0017

INVENTOR: Lazaryants, E. G.; Ivanova, A. I.; Kopylov, Ye. P.; Bogomolov, B. D.; Bugrov, V. P.; Pisarenko, A. P.; Rubina, S. I.; Chudakov, M. I.; Kosmodem'yanskiy, L. V.; Yemel'yanov, D. P.; Tsaylingol'd, V. L.

ORG: none

TITLE: Method of obtaining active lignin. Class 12, No. 188966

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 17

TOPIC TAGS: rubber, active lignin, lignin, organic solvent, rubber chemical

ABSTRACT: This Author Certificate introduces a method of preparing active lignin by treatment with alkali. To increase the reinforcing properties of the lignin when it is introduced into rubber in the dry state, an alkali solution of the lignin is treated with water-soluble organic solvents such as alcohols, ketone, and rosin soap precipitated with an acid in the finely disperse state and then dried. [Translation] [NT]

SUB CODE: 07/SUBM DATE: 17Feb64/

Card 1/1

UDC: 547.992.3-188.07

IVANOVA, A.I.

Decidual reaction in experimental hypo- and hyperthyreosis.  
Uzb. biol. zhur. 9 no.5:39-44 '65. (MIRA 18:10)

1. L'vovskiy meditsinskiy institut.

LYUBOMUDROVA, Ye.F.; IVANOVA, A.I.

Application of acrichine in the treatment of trichomonal colpitis.  
Akush. gin., Moskva no.5:84-85 Sept-Oct 1952. (GIML 23:2)

1. Honored Physician RSFSR for Lyubomudrova. 2. Of the Female Consultation Service of Maternity Home No.1, Kostroma.